

SEQUENCE LISTING

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<120> ANTIBODIES AGAINST LESIONAL TISSUES

<130> 14875-144US1

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<151> 2003-11-21

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<160> 188

<170> PatentIn version 3.1

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| tca gtg aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc | 96 |
| Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe | |
| 20 25 30 | |
| tat atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg | 144 |
| Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met | |
| 35 40 45 | |
| gga tgg atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt | 192 |
| Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe | |
| 50 55 60 | |
| cag gac agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac | 240 |
| Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr | |
| 65 70 75 80 | |
| atg gag ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt | 288 |
| Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys | |
| 85 90 95 | |

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 Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
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Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
 50 55 60

Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
 65 70 75 80

Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn
 20 25 30
 ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg 144
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 gca gtt ata tgg tat gat gga agt aat aaa tac tat gca gac tcc gtg 192
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 aag ggc cga ttc acc atc tcc aga gac aat tcc aag aac aca ctg tat 240
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 ctg caa atg aac agc ctg aga gcc gag gac acg gct gtg tat tac tgt 288
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 gcg aga gat cac ggc ctt ggt gat caa gcc tcc tgg ttc gac ccc tgg 336
 Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp
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 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
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 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn
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 ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg 144
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 gca gtt ata tgg tat gat gga agt aat aaa tac tat gca gac tcc gtg 192
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 aag ggc cga ttc acc atc tcc aga gac aat tcc aag aac aca ctg tat 240
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 ctg caa atg aac agc ctg aga gcc gag gac acg gct gtg tat tac tgt 288
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 gcg aga gat cac ggc ctt ggt gat caa gcc tcc tgg ttc gac ccc tgg 336
 Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp
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 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
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 Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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 Thr Val Thr Ile Ser Cys Lys Val Ser Gly His Asn Phe Ile Asp His
 20 25 30
 tac atg cat tgg gta caa cag gcc cct gga aaa ggg ctt gac tgg atg 144
 Tyr Met His Trp Val Gln Gln Ala Pro Gly Lys Gly Leu Asp Trp Met
 35 40 45
 gga cta att gac cct gaa gat ggt cag acg aaa tat tca gag agg ttt 192
 Gly Leu Ile Asp Pro Glu Asp Gly Gln Thr Lys Tyr Ser Glu Arg Phe
 50 55 60
 gag ggc aga gtc aca att acc gcg gac aag tca aca gac aca acc tac 240
 Glu Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Asp Thr Thr Tyr
 65 70 75 80
 ttg gag gtg agc ggc ctg aga tcg gaa gac acg gcc gtt tat ttc tgt 288
 Leu Glu Val Ser Gly Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
 85 90 95
 aca acg gac ttg ggt gac ttg aat tat tgg aac cct ggt cac cgt ctc 336
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ctc a
Leu

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35 40 45
Gly Leu Ile Asp Pro Glu Asp Gly Gln Thr Lys Tyr Ser Glu Arg Phe
50 55 60
Glu Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Asp Thr Thr Tyr
65 70 75 80
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Leu

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn
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ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg 144
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

gca gtt ata tgg tat gat gga agt aat aaa tac tat gca gac tcc gtg 192
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

aag ggc cga ttc acc atc tcc aga gac aat tcc aag aac aca ctg tat 240
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

ctg caa atg aac agc ctg aga gcc gag gac acg gct gtg tat tac tgt 288
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

gcg aga gat cac ggc ctt ggt gat caa gcc tcc tgg ttc gac ccc tgg 336
 Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp
 100 105 110

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 20 25 30

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 35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
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Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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 tct ctg aag atc tcc tgt cag ggt tct gga tac aca ttt agc aat tac 96
 Ser Leu Lys Ile Ser Cys Gln Gly Ser Gly Tyr Thr Phe Ser Asn Tyr
 20 25 30
 tgg atc gcc tgg gtg cgc cag agg ccc ggg aaa ggc ctg gag tgg atg 144
 Trp Ile Ala Trp Val Arg Gln Arg Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45
 ggg atc atc tat cct ggt gac tct gat atc aaa tac agt ccg tcc ttc 192
 Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ile Lys Tyr Ser Pro Ser Phe
 50 55 60
 caa ggc cat gtc acc atc tca gcc gac acg tcc atg aac acc gcc tac 240
 Gln Gly His Val Thr Ile Ser Ala Asp Thr Ser Met Asn Thr Ala Tyr
 65 70 75 80
 ctg cag tgg aac acc ctg aag gcc tcg gac acc gcc atg tac tac tgt 288
 Leu Gln Trp Asn Thr Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 gcg aga cat aaa ggg acc agg ttc ggg gag gtt ttg gcg gtt ggc aac 336
 Ala Arg His Lys Gly Thr Arg Phe Gly Glu Val Leu Ala Val Gly Asn
 100 105 110
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 20 25 30
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 35 40 45

Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ile Lys Tyr Ser Pro Ser Phe
50 55 60

Gln Gly His Val Thr Ile Ser Ala Asp Thr Ser Met Asn Thr Ala Tyr
65 70 75 80

Leu Gln Trp Asn Thr Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg His Lys Gly Thr Arg Phe Gly Glu Val Leu Ala Val Gly Asn
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Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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Ser Val Lys Phe Ser Cys Lys Ala Ser Gly Gly Ser Phe Ser Asn Tyr
20 25 30
gct atc acc tgg gtg cga cag gcc cct gga caa ggt ctt gag tgg atg 144
Ala Ile Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
gga agg atc atc cct atc ttt ggt ata cca aac tac gca cag gaa ttc 192
Gly Arg Ile Ile Pro Ile Phe Gly Ile Pro Asn Tyr Ala Gln Glu Phe
50 55 60
cag ggc aga gtc acg att acc gcc gac gat tcc acg acc aca gtc tac 240
Gln Gly Arg Val Thr Ile Thr Ala Asp Asp Ser Thr Thr Thr Val Tyr
65 70 75 80
atg gaa ctg agc agc ctg aga tct gag gac acg gcc gtg tat tac tgt 288
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
gcg aga gat aat tca ata gga gca cct gat act tgg tgg ttc gac ccc 336
Ala Arg Asp Asn Ser Ile Gly Ala Pro Asp Thr Trp Trp Phe Asp Pro
100 105 110
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 115 120

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 35 40 45
 Gly Arg Ile Ile Pro Ile Phe Gly Ile Pro Asn Tyr Ala Gln Glu Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Ala Asp Asp Ser Thr Thr Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
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 Trp Gly Gln Gly Pro Arg Ser Pro Ser Pro
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 Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe
 20 25 30
 tat atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg 144
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

gga tgg atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt 192
 Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
 50 55 60

cag gac agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac 240
 Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
 65 70 75 80

atg gag ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt 288
 Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

gcg aga acc cag gag gtt tac tac tac gct atg gac gtc tgg ggc caa 336
 Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
 100 105 110

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 115 120

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 35 40 45

Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
 50 55 60

Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
 65 70 75 80

Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

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| Gln | Val | Gln | Leu | Val | Gln | Ser | Gly | Gly | Gly | Val | Val | Gln | Pro | Gly | Arg | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| tcc | ctg | aga | ctc | tcc | tgt | gca | gcc | tct | gga | ttc | acc | ttc | agt | agc | aat | 96 |
| Ser | Leu | Arg | Leu | Ser | Cys | Ala | Ala | Ser | Gly | Phe | Thr | Phe | Ser | Ser | Asn | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ggc | atg | cac | tgg | gtc | cgc | cag | gct | cca | ggc | aag | ggg | ctg | gag | tgg | gtg | 144 |
| Gly | Met | His | Trp | Val | Arg | Gln | Ala | Pro | Gly | Lys | Gly | Leu | Glu | Trp | Val | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| gca | gtt | ata | tgg | tat | gat | gga | agt | aat | aaa | tac | tat | gca | gac | tcc | gtg | 192 |
| Ala | Val | Ile | Trp | Tyr | Asp | Gly | Ser | Asn | Lys | Tyr | Tyr | Ala | Asp | Ser | Val | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| aag | ggc | cga | ttc | acc | atc | tcc | aga | gac | aat | tcc | aag | aac | aca | ctg | tat | 240 |
| Lys | Gly | Arg | Phe | Thr | Ile | Ser | Arg | Asp | Asn | Ser | Lys | Asn | Thr | Leu | Tyr | |
| 65 | | | | | 70 | | | | 75 | | | | | 80 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ctg | caa | atg | aac | agc | ctg | agg | gcc | gag | gac | acg | gct | gtg | tat | tac | tgt | 288 |
| Leu | Gln | Met | Asn | Ser | Leu | Arg | Ala | Glu | Asp | Thr | Ala | Val | Tyr | Tyr | Cys | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| gcg | aga | gat | cac | ggc | ctt | ggt | gat | caa | gcc | tcc | tgg | ttc | gac | ccc | tgg | 336 |
| Ala | Arg | Asp | His | Gly | Leu | Gly | Asp | Gln | Ala | Ser | Trp | Phe | Asp | Pro | Trp | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|--|--|--|--|--|--|-----|
| ggc | cag | gga | acc | ctg | gtc | acc | gtc | tcc | tc | | | | | | | 365 |
| Gly | Gln | Gly | Thr | Leu | Val | Thr | Val | Ser | | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | | |

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<213> Homo sapiens

<400> 18

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| Gln | Val | Gln | Leu | Val | Gln | Ser | Gly | Gly | Gly | Val | Val | Gln | Pro | Gly | Arg | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ser | Leu | Arg | Leu | Ser | Cys | Ala | Ala | Ser | Gly | Phe | Thr | Phe | Ser | Ser | Asn | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gly | Met | His | Trp | Val | Arg | Gln | Ala | Pro | Gly | Lys | Gly | Leu | Glu | Trp | Val | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ala | Val | Ile | Trp | Tyr | Asp | Gly | Ser | Asn | Lys | Tyr | Tyr | Ala | Asp | Ser | Val | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser
115 120

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<212> DNA
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<220>
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<223>

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Gln Val Gln Leu Ala Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

tcc ctg aga ctc tcc tgt gca gcc tct gga ttc agc ttc agt agc tat 96
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
20 25 30

ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg 144
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

gca gtt ata tgg tat gat gga agc tat aaa tac tat gca gaa tcc gtg 192
Ala Val Ile Trp Tyr Asp Gly Ser Tyr Lys Tyr Tyr Ala Glu Ser Val
50 55 60

aag ggc cga ttc atc atc tcc aga gac aat tcc aag aac acc ctg tat 240
Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

ctg caa atg aac agc ctg aga gcc gag gac acg gct gtc tat tac tgt 288
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

gcg aga gat cgg ggg tcg gtg gag atg gct aca atc gcg gac tac tgg 336
Ala Arg Asp Arg Gly Ser Val Glu Met Ala Thr Ile Ala Asp Tyr Trp
100 105 110

ggc cag gga acc ctg gtc acc gtc tcc tca 366
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 20
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 20
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 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Tyr Lys Tyr Tyr Ala Glu Ser Val
 50 55 60
 Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Arg Gly Ser Val Glu Met Ala Thr Ile Ala Asp Tyr Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

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 1 5 10 15
 tcc ctg aga ctc tcc tgt gca gcc tct gga ttc agc ttc agt agc tat 96
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr
 20 25 30
 ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg 144
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 gca gtt ata tgg tat gat gga agt tat aaa tac tat gca gaa tcc gtg 192
 Ala Val Ile Trp Tyr Asp Gly Ser Tyr Lys Tyr Tyr Ala Glu Ser Val

| 50 | 55 | 60 | |
|---|-----|-----|-----|
| aag ggc cga ttc atc atc tcc aga gac aat tcc aag aac acc ctg tat | | | 240 |
| Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr | | | |
| 65 | 70 | 75 | 80 |
| ctg caa atg aac agc ctg aga gcc gag gac acg gct gtg tat tac tgt | | | 288 |
| Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys | | | |
| | 85 | 90 | 95 |
| gcg aga gat cgg ggg tcg gta gag atg gct aca atc gcg gac tac tgg | | | 336 |
| Ala Arg Asp Arg Gly Ser Val Glu Met Ala Thr Ile Ala Asp Tyr Trp | | | |
| | 100 | 105 | 110 |
| ggc cag gga acc ctg gtc acc gtc tcc tca | | | 366 |
| Gly Gln Gly Thr Leu Val Thr Val Ser Ser | | | |
| | 115 | 120 | |

<210> 22
 <211> 122
 <212> PRT
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| Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg | |
| 1 | 15 |
| Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Ser Ser Tyr | |
| | 30 |
| Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val | |
| | 45 |
| Ala Val Ile Trp Tyr Asp Gly Ser Tyr Lys Tyr Tyr Ala Glu Ser Val | |
| | 60 |
| Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr | |
| 65 | 80 |
| Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys | |
| | 95 |
| Ala Arg Asp Arg Gly Ser Val Glu Met Ala Thr Ile Ala Asp Tyr Trp | |
| | 110 |
| Gly Gln Gly Thr Leu Val Thr Val Ser Ser | |
| | 120 |

<210> 23
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 <212> DNA
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<220>
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<222> (1) .. (366)

<223>

<400> 23

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| cag | gtc | cag | ctg | gtg | caa | tct | ggg | gga | ggc | gtg | gtc | cag | cct | ggg | agg | 48 |
| Gln | Val | Gln | Leu | Val | Gln | Ser | Gly | Gly | Gly | Val | Val | Gln | Pro | Gly | Arg | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| tcc | ctg | aga | ctc | tcc | tgt | gca | gcc | tct | gga | ttc | agc | ttc | agt | agc | tat | 96 |
| Ser | Leu | Arg | Leu | Ser | Cys | Ala | Ala | Ser | Gly | Phe | Ser | Phe | Ser | Ser | Tyr | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ggc | atg | cac | tgg | gtc | cgc | cag | gct | cca | ggc | aag | ggg | ctg | gag | tgg | gtg | 144 |
| Gly | Met | His | Trp | Val | Arg | Gln | Ala | Pro | Gly | Lys | Gly | Leu | Glu | Trp | Val | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| gca | gtt | ata | tgg | tat | gat | gga | agt | tat | aaa | tac | tat | gca | gaa | tcc | gtg | 192 |
| Ala | Val | Ile | Trp | Tyr | Asp | Gly | Ser | Tyr | Lys | Tyr | Tyr | Ala | Glu | Ser | Val | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| aag | ggc | cga | ttc | atc | atc | tcc | aga | gac | aat | tcc | aag | aac | acc | ctg | tat | 240 |
| Lys | Gly | Arg | Phe | Ile | Ile | Ser | Arg | Asp | Asn | Ser | Lys | Asn | Thr | Leu | Tyr | |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ctg | caa | atg | aac | agc | ctg | aga | gcc | gag | gac | acg | gct | gtc | tat | tac | tgt | 288 |
| Leu | Gln | Met | Asn | Ser | Leu | Arg | Ala | Glu | Asp | Thr | Ala | Val | Tyr | Tyr | Cys | |
| | | | 85 | | | | | 90 | | | | | 95 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| gcg | aga | gat | cgg | ggg | tcg | gta | gag | atg | gct | aca | atc | gcg | gac | tac | tgg | 336 |
| Ala | Arg | Asp | Arg | Gly | Ser | Val | Glu | Met | Ala | Thr | Ile | Ala | Asp | Tyr | Trp | |
| | | | 100 | | | | 105 | | | | | 110 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|--|--|--|-----|
| ggc | cag | gga | acc | ctg | gtc | acc | gtc | tcc | tca | | | | | | | 366 |
| Gly | Gln | Gly | Thr | Leu | Val | Thr | Val | Ser | Ser | | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | | |

<210> 24

<211> 122

<212> PRT

<213> Homo sapiens

<400> 24

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Val | Gln | Leu | Val | Gln | Ser | Gly | Gly | Gly | Val | Val | Gln | Pro | Gly | Arg |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Leu | Arg | Leu | Ser | Cys | Ala | Ala | Ser | Gly | Phe | Ser | Phe | Ser | Ser | Tyr |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Met | His | Trp | Val | Arg | Gln | Ala | Pro | Gly | Lys | Gly | Leu | Glu | Trp | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Ile | Trp | Tyr | Asp | Gly | Ser | Tyr | Lys | Tyr | Tyr | Ala | Glu | Ser | Val |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gly | Arg | Phe | Ile | Ile | Ser | Arg | Asp | Asn | Ser | Lys | Asn | Thr | Leu | Tyr |
| 65 | | | | 70 | | | | | 75 | | | | | 80 | |

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp Arg Gly Ser Val Glu Met Ala Thr Ile Ala Asp Tyr Trp
 100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

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<400> 25
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 Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15

acc ctc tca ctc acc tgt gcc atc tcc ggg gac agt gtc tct agc aac 96
 Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn
 20 25 30

agt gct gct tgg cac tgg atc agg cag tcc cca tcg aga ggc ctt gag 144
 Ser Ala Ala Trp His Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
 35 40 45

tgg ctg gga agg aca tac tac agg tcc aag tgg tat aat gat tat aca 192
 Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Asn Asp Tyr Thr
 50 55 60

gtg tct gtg aaa agt cga ata acc atc aag cca gac aca tcc aag aac 240
 Val Ser Val Lys Ser Arg Ile Thr Ile Lys Pro Asp Thr Ser Lys Asn
 65 70 75 80

cag ttc tcc ctg cag ctg aac tct gtg act ccc gag gac acg gct gtg 288
 Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
 85 90 95

tat tac tgt gca aga tca cag gaa gag cac cgg tcg ttg gat gat gct 336
 Tyr Tyr Cys Ala Arg Ser Gln Glu His Arg Ser Leu Asp Asp Ala
 100 105 110

ttt gat atc tgg gac cac ggt cac cgt ctc ctc a 370
 Phe Asp Ile Trp Asp His Gly His Arg Leu Leu
 115 120

<210> 26
 <211> 123

<212> PRT
 <213> Homo sapiens

<400> 26

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Gln | Val | Gln | Leu | Gln | Gln | Ser | Gly | Pro | Gly | Leu | Val | Lys | Pro | Ser | Gln | |
| 1 | | | | 5 | | | | | 10 | | | | | | 15 | |
| Thr | Leu | Ser | Leu | Thr | Cys | Ala | Ile | Ser | Gly | Asp | Ser | Val | Ser | Ser | Asn | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| Ser | Ala | Ala | Trp | His | Trp | Ile | Arg | Gln | Ser | Pro | Ser | Arg | Gly | Leu | Glu | |
| | | 35 | | | | | 40 | | | | | 45 | | | | |
| Trp | Leu | Gly | Arg | Thr | Tyr | Tyr | Arg | Ser | Lys | Trp | Tyr | Asn | Asp | Tyr | Thr | |
| | 50 | | | | | 55 | | | | | 60 | | | | | |
| Val | Ser | Val | Lys | Ser | Arg | Ile | Thr | Ile | Lys | Pro | Asp | Thr | Ser | Lys | Asn | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Gln | Phe | Ser | Leu | Gln | Leu | Asn | Ser | Val | Thr | Pro | Glu | Asp | Thr | Ala | Val | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |
| Tyr | Tyr | Cys | Ala | Arg | Ser | Gln | Glu | Glu | His | Arg | Ser | Leu | Asp | Asp | Ala | |
| | | | 100 | | | | | 105 | | | | | 110 | | | |
| Phe | Asp | Ile | Trp | Asp | His | Gly | His | Arg | Leu | Leu | | | | | | |
| | | 115 | | | | | 120 | | | | | | | | | |

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 <211> 360
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<220>
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 <222> (1)..(360)
 <223>

<400> 27

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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| cag | gtc | cag | ctg | gtg | caa | tct | ggg | gct | gag | gtg | aag | aag | cct | ggg | gcc | 48 |
| Gln | Val | Gln | Leu | Val | Gln | Ser | Gly | Ala | Glu | Val | Lys | Lys | Pro | Gly | Ala | |
| 1 | | | | 5 | | | | 10 | | | | | | 15 | | |
| tca | gtg | aag | gtc | tcc | tgt | cag | gct | tct | gga | tac | atg | ttc | acc | ggc | ttc | 96 |
| Ser | Val | Lys | Val | Ser | Cys | Gln | Ala | Ser | Gly | Tyr | Met | Phe | Thr | Gly | Phe | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |
| tat | atg | cac | tgg | gtg | cga | cag | gcc | cct | gga | caa | ggg | ctt | gag | tgg | atg | 144 |
| Tyr | Met | His | Trp | Val | Arg | Gln | Ala | Pro | Gly | Gln | Gly | Leu | Glu | Trp | Met | |
| | | 35 | | | | 40 | | | | | 45 | | | | | |
| gga | tgg | atg | aac | act | aac | agt | ggg | gcc | aca | ggc | tat | gca | cac | aag | ttt | 192 |
| Gly | Trp | Met | Asn | Thr | Asn | Ser | Gly | Ala | Thr | Gly | Tyr | Ala | His | Lys | Phe | |
| | 50 | | | | | 55 | | | | 60 | | | | | | |
| cag | gac | agg | gtc | acc | ctg | acc | agg | gac | acg | tcc | atc | agc | aca | ggc | tac | 240 |

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|
| Gln | Asp | Arg | Val | Thr | Leu | Thr | Arg | Asp | Thr | Ser | Ile | Ser | Thr | Gly | Tyr | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| atg | gag | ctg | ggc | ggc | ctg | aca | tct | gac | gac | acg | gcc | gtg | tat | tat | tgt | | 288 |
| Met | Glu | Leu | Gly | Gly | Leu | Thr | Ser | Asp | Asp | Thr | Ala | Val | Tyr | Tyr | Cys | | |
| | | | 85 | | | | | 90 | | | | | 95 | | | | |
| gcg | aga | acc | cag | gag | gtt | tac | tac | tac | gct | atg | gac | gtc | tgg | ggc | caa | | 336 |
| Ala | Arg | Thr | Gln | Glu | Val | Tyr | Tyr | Tyr | Ala | Met | Asp | Val | Trp | Gly | Gln | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| ggg | aca | atg | gtc | acc | gtc | tct | tca | | | | | | | | | | 360 |
| Gly | Thr | Met | Val | Thr | Val | Ser | Ser | | | | | | | | | | |
| | | 115 | | | | 120 | | | | | | | | | | | |

<210> 28
 <211> 120
 <212> PRT
 <213> Homo sapiens

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| <400> | 28 | | | | | | | | | | | | | | | | |
| Gln | Val | Gln | Leu | Val | Gln | Ser | Gly | Ala | Glu | Val | Lys | Lys | Pro | Gly | Ala | | |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | | | |
| Ser | Val | Lys | Val | Ser | Cys | Gln | Ala | Ser | Gly | Tyr | Met | Phe | Thr | Gly | Phe | | |
| | | 20 | | | | 25 | | | | | | 30 | | | | | |
| Tyr | Met | His | Trp | Val | Arg | Gln | Ala | Pro | Gly | Gln | Gly | Leu | Glu | Trp | Met | | |
| | | 35 | | | | 40 | | | | | 45 | | | | | | |
| Gly | Trp | Met | Asn | Thr | Asn | Ser | Gly | Ala | Thr | Gly | Tyr | Ala | His | Lys | Phe | | |
| | 50 | | | | 55 | | | | | 60 | | | | | | | |
| Gln | Asp | Arg | Val | Thr | Leu | Thr | Arg | Asp | Thr | Ser | Ile | Ser | Thr | Gly | Tyr | | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | | |
| Met | Glu | Leu | Gly | Gly | Leu | Thr | Ser | Asp | Asp | Thr | Ala | Val | Tyr | Tyr | Cys | | |
| | | | 85 | | | | | 90 | | | | | | 95 | | | |
| Ala | Arg | Thr | Gln | Glu | Val | Tyr | Tyr | Tyr | Ala | Met | Asp | Val | Trp | Gly | Gln | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Gly | Thr | Met | Val | Thr | Val | Ser | Ser | | | | | | | | | | |
| | | 115 | | | | 120 | | | | | | | | | | | |

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 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Arg Lys Pro Gly Thr
 1 5 10 15

 aca gtg aca atc tcc tgc aag gtt tct gga cac aac ttc atc gac cac 96
 Thr Val Thr Ile Ser Cys Lys Val Ser Gly His Asn Phe Ile Asp His
 20 25 30

 tac atg cat tgg gta caa cag gcc cct gga aaa ggg ctt gac tgg atg 144
 Tyr Met His Trp Val Gln Gln Ala Pro Gly Lys Gly Leu Asp Trp Met
 35 40 45

 gga cta att gac cct gaa gat ggt cag acg aaa tat tca gag agg ttt 192
 Gly Leu Ile Asp Pro Glu Asp Gly Gln Thr Lys Tyr Ser Glu Arg Phe
 50 55 60

 gag ggc aga gtc aca att acc gcg gac aag tca aca gac aca acc tac 240
 Glu Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Asp Thr Thr Tyr
 65 70 75 80

 ttg gag gtg agc ggc ctg aga tcg gaa gac acg gcc gtt tat ttc tgt 288
 Leu Glu Val Ser Gly Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
 85 90 95

 aca acg gac ttg ggt gac ttg aat tat tgg ggc cag gga acc ctg gtc 336
 Thr Thr Asp Leu Gly Asp Leu Asn Tyr Trp Gly Gln Gly Thr Leu Val
 100 105 110

 acc gtc tcc tca 348
 Thr Val Ser Ser
 115

 <210> 30
 <211> 116
 <212> PRT
 <213> Homo sapiens

 <400> 30
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 1 5 10 15

 Thr Val Thr Ile Ser Cys Lys Val Ser Gly His Asn Phe Ile Asp His
 20 25 30

 Tyr Met His Trp Val Gln Gln Ala Pro Gly Lys Gly Leu Asp Trp Met
 35 40 45

 Gly Leu Ile Asp Pro Glu Asp Gly Gln Thr Lys Tyr Ser Glu Arg Phe
 50 55 60

 Glu Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Asp Thr Thr Tyr
 65 70 75 80

 Leu Glu Val Ser Gly Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Thr Thr Asp Leu Gly Asp Leu Asn Tyr Trp Gly Gln Gly Thr Leu Val
 100 105 110

Thr Val Ser Ser
 115

<210> 31
 <211> 366
 <212> DNA
 <213> Homo sapiens

<220>
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<400> 31
 cag gtc cag ctg gtg caa tct ggg gga ggc gtg gtc cag cct ggg agg 48
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
 tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttc agt agc aat 96
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn
 20 25 30
 ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg 144
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 gca gtt ata tgg tat gat gga agt aat aaa tac tat gca gac tcc gtg 192
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60
 aag ggc cga ttc acc atc tcc aga gac aat tcc aag aac aca ctg tat 240
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 ctg caa atg aac agc ctg aga gcc gag gac acg gct gtg tat tac tgt 288
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 gcg aga gat cac ggc ctt ggt gat caa gcc tcc tgg ttc gac ccc tgg 336
 Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp
 100 105 110
 ggc cag ggc acc ctg gtc acc gtc tcc tca 366
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 32
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 32

Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp
 100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 33

<211> 368

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(366)

<223>

<400> 33

cag gtc cag ctg gtg caa tct ggg gct gag gtg aag aag tct ggg gcc 48
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Ser Gly Ala
 1 5 10 15

tca gtg aag gtc tcc tgc aag gct tct gga tac acc ttc acc ggc cac 96
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly His
 20 25 30

ttt atc cac tgg gtg cgg cag gcc cct gga caa ggg ctt gag tgg atg 144
 Phe Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

gga tgg atc aac cct aac gtt ggt gtc aca aat tat gca cag aag ttt 192
 Gly Trp Ile Asn Pro Asn Val Gly Val Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

cag ggc agg gtc acc atg acc agg gac acg tcc ata agc aca gcc tac 240
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

ata gaa ctg agg agg ctg aga tct gac gac acg gcc gtg tat tac tgt 288
 Ile Glu Leu Arg Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

gtg aga gaa tcc gac aca gct gcg gtg gcc tac tac tac cac ggt atg 336
 Val Arg Glu Ser Asp Thr Ala Ala Val Ala Tyr Tyr Tyr His Gly Met
 100 105 110

gac gtc tgg gga caa tgg tca ccg tct ctt ca 368
 Asp Val Trp Gly Gln Trp Ser Pro Ser Leu
 115 120

<210> 34
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 34
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Ser Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly His
 20 25 30

Phe Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Val Gly Val Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Ile Glu Leu Arg Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Val Arg Glu Ser Asp Thr Ala Ala Val Ala Tyr Tyr Tyr His Gly Met
 100 105 110

Asp Val Trp Gly Gln Trp Ser Pro Ser Leu
 115 120

<210> 35
 <211> 375
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(375)
 <223>

<400> 35
 cag gtc cag ctg gtg caa tct ggg gga gac tgg gta aag cct ggg ggg 48
 Gln Val Gln Leu Val Gln Ser Gly Gly Asp Trp Val Lys Pro Gly Gly

| 1 | 5 | 10 | 15 | |
|---|-----|-----|-----|-----|
| tcc ctt aga ctc tcc tgt gca gcg tct gga ttc cct ttc gct aat gcc | | | | 96 |
| Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Pro Phe Ala Asn Ala | | | | |
| | 20 | 25 | 30 | |
| tgg atg tat tgg ttc cgc cag gct cca ggg aag ggg ctg gag tgg gtt | | | | 144 |
| Trp Met Tyr Trp Phe Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val | | | | |
| | 35 | 40 | 45 | |
| ggc cgt att aaa agc aaa cca agt ggt ggg gct aca gag ttc gct gca | | | | 192 |
| Gly Arg Ile Lys Ser Lys Pro Ser Gly Gly Ala Thr Glu Phe Ala Ala | | | | |
| | 50 | 55 | 60 | |
| ccc gtg gaa ggt aga ttc agc atc tcc aga gac gat tcg aaa aac acg | | | | 240 |
| Pro Val Glu Gly Arg Phe Ser Ile Ser Arg Asp Asp Ser Lys Asn Thr | | | | |
| | 65 | 70 | 75 | 80 |
| atg gat ctg caa atg aat agc ctg aga acc gac gac aca gcc gta tat | | | | 288 |
| Met Asp Leu Gln Met Asn Ser Leu Arg Thr Asp Asp Thr Ala Val Tyr | | | | |
| | 85 | 90 | 95 | |
| tat tgt acc aca gat tgg ggt tcg ggg acc tat cat aag ttt gct tta | | | | 336 |
| Tyr Cys Thr Thr Asp Trp Gly Ser Gly Thr Tyr His Lys Phe Ala Leu | | | | |
| | 100 | 105 | 110 | |
| gat gtc tgg ggc caa ggg aca atg gtc acc gtc tct tca | | | | 375 |
| Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser | | | | |
| | 115 | 120 | 125 | |
| <210> 36 | | | | |
| <211> 125 | | | | |
| <212> PRT | | | | |
| <213> Homo sapiens | | | | |
| <400> 36 | | | | |
| Gln Val Gln Leu Val Gln Ser Gly Gly Asp Trp Val Lys Pro Gly Gly | | | | |
| 1 | 5 | 10 | 15 | |
| Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Pro Phe Ala Asn Ala | | | | |
| | 20 | 25 | 30 | |
| Trp Met Tyr Trp Phe Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val | | | | |
| | 35 | 40 | 45 | |
| Gly Arg Ile Lys Ser Lys Pro Ser Gly Gly Ala Thr Glu Phe Ala Ala | | | | |
| | 50 | 55 | 60 | |
| Pro Val Glu Gly Arg Phe Ser Ile Ser Arg Asp Asp Ser Lys Asn Thr | | | | |
| | 65 | 70 | 75 | 80 |
| Met Asp Leu Gln Met Asn Ser Leu Arg Thr Asp Asp Thr Ala Val Tyr | | | | |
| | 85 | 90 | 95 | |
| Tyr Cys Thr Thr Asp Trp Gly Ser Gly Thr Tyr His Lys Phe Ala Leu | | | | |
| | 100 | 105 | 110 | |

Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
 115 120 125

<210> 37
 <211> 357
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(357)
 <223>

<400> 37
 gtg cag ctg gtg caa tct ggg gct gag gtg aag aag cct ggg gcc tca 48
 Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser
 1 5 10 15
 gtg aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc tat 96
 Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe Tyr
 20 25 30
 atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg gga 144
 Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
 35 40 45
 tgg atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt cag 192
 Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe Gln
 50 55 60
 gac agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac atg 240
 Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr Met
 65 70 75 80
 gag ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt gcg 288
 Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95
 aga acc cag gag gtt tac tac tac gct atg gac gtc tgg ggc caa ggg 336
 Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln Gly
 100 105 110
 aca atg gtc acc gtc tct tca 357
 Thr Met Val Thr Val Ser Ser
 115

<210> 38
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 38
 Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser
 1 5 10 15

Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe Tyr
 20 25 30

Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
 35 40 45

Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe Gln
 50 55 60

Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr Met
 65 70 75 80

Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln Gly
 100 105 110

Thr Met Val Thr Val Ser Ser
 115

<210> 39
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(360)
 <223>

<400> 39
 cag gtg cag ctg gtg caa tct ggg gct gag gtg aag aag cct ggg gcc 48
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

tca gtg aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc 96
 Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe
 20 25 30

tat atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg 144
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

gga tgg atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt 192
 Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
 50 55 60

cag gac agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac 240
 Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
 65 70 75 80

atg gag ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt 288
 Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

gcg aga acc cag gag gtt tac tac tac gct atg gac gtc tgg ggc caa 336
 Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
 100 105 110

ggg aca atg gtc acc gtc tct tca 360
 Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 40
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 40
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
 50 55 60

Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
 65 70 75 80

Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
 100 105 110

Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 41
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(360)
 <223>

<400> 41
 cag gtc cag ctg gtg caa tct ggg gct gag gcg aag aag cct ggg gcc 48
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Ala Lys Lys Pro Gly Ala
 1 5 10 15

tca gtg aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc 96

| Ser | Val | Lys | Val | Ser | Cys | Gln | Ala | Ser | Gly | Tyr | Met | Phe | Thr | Gly | Phe | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 20 | | | | 25 | | | | | | 30 | | | | |
| tat | atg | cac | tgg | gtg | cga | cag | gcc | cct | gga | caa | ggg | ctt | gag | tgg | atg | 144 | |
| Tyr | Met | His | Trp | Val | Arg | Gln | Ala | Pro | Gly | Gln | Gly | Leu | Glu | Trp | Met | | |
| | | | 35 | | | | 40 | | | | 45 | | | | | | |
| gga | tgg | atg | aac | act | aac | agt | ggg | gcc | aca | ggc | tat | gca | cac | aag | ttt | 192 | |
| Gly | Trp | Met | Asn | Thr | Asn | Ser | Gly | Ala | Thr | Gly | Tyr | Ala | His | Lys | Phe | | |
| | | | 50 | | | | 55 | | | | 60 | | | | | | |
| cag | gac | agg | gtc | acc | ctg | acc | agg | gac | acg | tcc | atc | agc | aca | ggc | tac | 240 | |
| Gln | Asp | Arg | Val | Thr | Leu | Thr | Arg | Asp | Thr | Ser | Ile | Ser | Thr | Gly | Tyr | | |
| | | | 65 | | | | 70 | | | | 75 | | | | 80 | | |
| atg | gag | ctg | ggc | ggc | ctg | aca | tct | gac | gac | acg | gcc | gtg | tat | tat | tgt | 288 | |
| Met | Glu | Leu | Gly | Gly | Leu | Thr | Ser | Asp | Asp | Thr | Ala | Val | Tyr | Tyr | Cys | | |
| | | | 85 | | | | | | | 90 | | | | 95 | | | |
| gcg | aga | acc | cag | gag | gtt | tac | tac | tac | gct | atg | gac | gtc | tgg | ggc | caa | 336 | |
| Ala | Arg | Thr | Gln | Glu | Val | Tyr | Tyr | Tyr | Ala | Met | Asp | Val | Trp | Gly | Gln | | |
| | | | 100 | | | | | | | 105 | | | | 110 | | | |
| ggg | acc | acg | gtc | acc | gtc | tcc | tca | | | | | | | | | | 360 |
| Gly | Thr | Thr | Val | Thr | Val | Ser | Ser | | | | | | | | | | |
| | | | 115 | | | | 120 | | | | | | | | | | |

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<210> 42
<211> 120
<212> PRT
<213> Homo sapiens
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<400> 42
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Ala Lys Lys Pro Gly Ala
1          5          10          15
Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe
          20          25          30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
          35          40          45
Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
          50          55          60
Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
65          70          75          80
Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
          85          90          95
Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
          100          105          110
Gly Thr Thr Val Thr Val Ser Ser
          115          120

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<210> 43
 <211> 369
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) .. (369)
 <223>

<400> 43
 cag gtc cag ctg gtg caa tct ggg gga ggc ttg gta cag cca ggg cgg 48
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
 tcc ctg aga ctc tcc tgt aca act tct gga ttc acc ttt agt gat tat 96
 Ser Leu Arg Leu Ser Cys Thr Thr Ser Gly Phe Thr Phe Ser Asp Tyr
 20 25 30
 gct ttg agc tgg gtc cgc cag gct cca ggg agg ggg ctg gag tgg gta 144
 Ala Leu Ser Trp Val Arg Gln Ala Pro Gly Arg Gly Leu Glu Trp Val
 35 40 45
 ggt ttc att aga aat aaa att tat ggt ggg aca aca gat tac gcc gca 192
 Gly Phe Ile Arg Asn Lys Ile Tyr Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60
 tct gtg aaa ggc aga ttc acc atc tca aga gat gat tcc aaa agt atc 240
 Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ile
 65 70 75 80
 gcc tat ctg caa atg aac agc ctg aaa acc gag gac tca gcc gtc tat 288
 Ala Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Ser Ala Val Tyr
 85 90 95
 tac tgt act aga gat tcg ggt gtg gtg act gct gcc tac ttt gac tac 336
 Tyr Cys Thr Arg Asp Ser Gly Val Val Thr Ala Ala Tyr Phe Asp Tyr
 100 105 110
 tgg ggc cag ggc acc ctg gtc acc gtc tcc tca 369
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 44
 <211> 123
 <212> PRT
 <213> Homo sapiens

<400> 44
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Thr Thr Ser Gly Phe Thr Phe Ser Asp Tyr
 20 25 30

Ala Leu Ser Trp Val Arg Gln Ala Pro Gly Arg Gly Leu Glu Trp Val
 35 40 45

Gly Phe Ile Arg Asn Lys Ile Tyr Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ile
 65 70 75 80

Ala Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Ser Ala Val Tyr
 85 90 95

Tyr Cys Thr Arg Asp Ser Gly Val Val Thr Ala Ala Tyr Phe Asp Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 45
 <211> 366
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) .. (366)
 <223>

<400> 45
 cag gtc cag ctg gtg caa tct ggg gga ggc gtg gtc cag cct ggg agg 48
 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttc agt agc aat 96
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn
 20 25 30

ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg 144
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

gca gtt ata tgg tat gat gga agt aat aaa tac tat gca gac tcc gtg 192
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

aag ggc cga ttc acc atc tcc aga gac aat tcc aag aac aca ctg tat 240
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

ctg caa atg aac agc ctg aga gcc gag gac acg gct gtg tat tac tgt 288
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

gcg aga gat cac ggc ctt ggt gat caa gcc tcc tgg ttc gac ccc tgg 336
 Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp

| | 100 | 105 | 110 | |
|---|-----|-----|-----|-----|
| ggc cag ggg acc acg gtc acc gtc tcc tca | | | | 366 |
| Gly Gln Gly Thr Thr Val Thr Val Ser Ser | | | | |
| 115 | | 120 | | |

<210> 46
 <211> 122
 <212> PRT
 <213> Homo sapiens

| | | | | |
|---|-----|-----|----|--|
| <400> 46 | | | | |
| Gln Val Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg | | | | |
| 1 | 5 | 10 | 15 | |
| Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asn | | | | |
| 20 | 25 | 30 | | |
| Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val | | | | |
| 35 | 40 | 45 | | |
| Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val | | | | |
| 50 | 55 | 60 | | |
| Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr | | | | |
| 65 | 70 | 75 | 80 | |
| Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys | | | | |
| 85 | 90 | 95 | | |
| Ala Arg Asp His Gly Leu Gly Asp Gln Ala Ser Trp Phe Asp Pro Trp | | | | |
| 100 | 105 | 110 | | |
| Gly Gln Gly Thr Thr Val Thr Val Ser Ser | | | | |
| 115 | 120 | | | |

<210> 47
 <211> 360
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(360)
 <223>

| | | | | |
|---|----|----|----|----|
| <400> 47 | | | | |
| cag gtc cag ctg gtg caa tct ggg gct gag gtg aag aag cct ggg gcc | | | | 48 |
| Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala | | | | |
| 1 | 5 | 10 | 15 | |
| tca gtg aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc | | | | 96 |
| Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe | | | | |
| 20 | 25 | 30 | | |

tat atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg 144
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

gga tgg atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt 192
 Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
 50 55 60

cag gac agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac 240
 Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
 65 70 75 80

atg gag ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt 288
 Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

gcg aga acc cag gag gtt tac tac tac gct atg gac gtc tgg ggc caa 336
 Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
 100 105 110

ggg aca atg gtc acc gtc tct tca 360
 Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 48
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 48
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
 50 55 60

Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
 65 70 75 80

Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
 100 105 110

Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 49

<211> 353
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(351)
 <223>

<400> 49
 cag ctg gtg caa tct ggg gct gag gtg aag aag cct ggg gcc tca gtg 48
 Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser Val
 1 5 10 15
 aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc tat atg 96
 Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe Tyr Met
 20 25 30
 cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg gga tgg 144
 His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp
 35 40 45
 atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt cag gac 192
 Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe Gln Asp
 50 55 60
 agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac atg gag 240
 Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr Met Glu
 65 70 75 80
 ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt gcg aga 288
 Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg
 85 90 95
 acc cag gag gtt tac tac tac gct atg gac gtc tgg ggc caa ggg aca 336
 Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln Gly Thr
 100 105 110
 atg gtc acc gtc tct tc 353
 Met Val Thr Val Ser
 115

<210> 50
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 50
 Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser Val
 1 5 10 15
 Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe Tyr Met
 20 25 30
 His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp
 35 40 45

Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe Gln Asp
50 55 60

Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr Met Glu
65 70 75 80

Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg
85 90 95

Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln Gly Thr
100 105 110

Met Val Thr Val Ser
115

<210> 51
<211> 360
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(360)
<223>

<400> 51
cag gtc cag ctg gtg caa tct ggg gct gag gtg aag aag cct ggg gcc 48
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

tca gtg aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc 96
Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe
20 25 30

tat atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg 144
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

gga tgg atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt 192
Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
50 55 60

cag gac agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac 240
Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
65 70 75 80

atg gag ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt 288
Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

gcg aga acc cag gag gtt tac tac tac gct atg gac gtc tgg ggc caa 336
Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
100 105 110

gga acc ctg gtc acc gtc tct tca 360

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 52
<211> 120
<212> PRT
<213> Homo sapiens

<400> 52
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe
20 25 30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe
50 55 60
Gln Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr
65 70 75 80
Met Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Trp Gly Gln
100 105 110
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 53
<211> 357
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(357)
<223>

<400> 53
gtc cag ctg gtg caa tct ggg gct gag gtg aag aag cct ggg gcc tca 48
Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser
1 5 10 15
gtg aag gtc tcc tgt cag gct tct gga tac atg ttc acc ggc ttc tat 96
Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe Tyr
20 25 30
atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg gga 144
Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
35 40 45

tgg atg aac act aac agt ggt gcc aca ggc tat gca cac aag ttt cag 192
 Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe Gln
 50 55 60

gac agg gtc acc ctg acc agg gac acg tcc atc agc aca ggc tac atg 240
 Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr Met
 65 70 75 80

gag ctg ggc ggc ctg aca tct gac gac acg gcc gtg tat tat tgt gcg 288
 Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

aga acc cag gag gtt tac tac tac gct atg gac gta ctg ggg cca agg 336
 Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Leu Gly Pro Arg
 100 105 110

gac aat ggt cac cgt ctc ttc 357
 Asp Asn Gly His Arg Leu Phe
 115

<210> 54
 <211> 119
 <212> PRT
 <213> Homo sapiens

<400> 54
 Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser
 1 5 10 15

Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Met Phe Thr Gly Phe Tyr
 20 25 30

Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
 35 40 45

Trp Met Asn Thr Asn Ser Gly Ala Thr Gly Tyr Ala His Lys Phe Gln
 50 55 60

Asp Arg Val Thr Leu Thr Arg Asp Thr Ser Ile Ser Thr Gly Tyr Met
 65 70 75 80

Glu Leu Gly Gly Leu Thr Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg Thr Gln Glu Val Tyr Tyr Tyr Ala Met Asp Val Leu Gly Pro Arg
 100 105 110

Asp Asn Gly His Arg Leu Phe
 115

<210> 55
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>

<221> CDS

<222> (1)..(342)

<223>

<400> 55

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| gat | att | gtg | atg | acc | cag | act | cca | gac | tcc | ctg | gct | gtg | tct | ctg | ggc | 48 |
| Asp | Ile | Val | Met | Thr | Gln | Thr | Pro | Asp | Ser | Leu | Ala | Val | Ser | Leu | Gly | |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| gag | agg | gcc | acc | atc | aac | tgc | aag | tcc | agc | cag | agt | gtt | tta | tac | agc | 96 |
| Glu | Arg | Ala | Thr | Ile | Asn | Cys | Lys | Ser | Ser | Gln | Ser | Val | Leu | Tyr | Ser | |
| | | | 20 | | | | | 25 | | | | | 30 | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| tcc | aac | aat | aag | aac | tac | tta | gct | tgg | tac | cag | cag | aaa | cca | gga | cag | 144 |
| Ser | Asn | Asn | Lys | Asn | Tyr | Leu | Ala | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Gln | |
| | | | 35 | | | | 40 | | | | | 45 | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| cct | cct | aaa | ctg | ctc | att | tac | tgg | gca | tct | acc | cgg | gaa | tcc | ggg | gtc | 192 |
| Pro | Pro | Lys | Leu | Leu | Ile | Tyr | Trp | Ala | Ser | Thr | Arg | Glu | Ser | Gly | Val | |
| | | 50 | | | | 55 | | | | | 60 | | | | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| cct | gac | cga | ttc | agt | ggc | agc | ggg | tct | ggg | aca | gat | ttc | act | ctc | acc | 240 |
| Pro | Asp | Arg | Phe | Ser | Gly | Ser | Gly | Ser | Gly | Thr | Asp | Phe | Thr | Leu | Thr | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| atc | agc | acc | ctg | cag | gct | gaa | gat | gtg | gca | gtt | tat | tac | tgt | cag | caa | 288 |
| Ile | Ser | Thr | Leu | Gln | Ala | Glu | Asp | Val | Ala | Val | Tyr | Tyr | Cys | Gln | Gln | |
| | | | | 85 | | | | | 90 | | | | | 95 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| tat | tat | agt | act | cct | ccg | acg | ttc | ggc | caa | ggg | acc | aag | gtg | gaa | atc | 336 |
| Tyr | Tyr | Ser | Thr | Pro | Pro | Thr | Phe | Gly | Gln | Gly | Thr | Lys | Val | Glu | Ile | |
| | | | 100 | | | | | 105 | | | | | | 110 | | |

| | | | | | | | | | | | | | | | | |
|-----|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----|
| aaa | cgt | | | | | | | | | | | | | | | 342 |
| Lys | Arg | | | | | | | | | | | | | | | |

<210> 56

<211> 114

<212> PRT

<213> Homo sapiens

<400> 56

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Ile | Val | Met | Thr | Gln | Thr | Pro | Asp | Ser | Leu | Ala | Val | Ser | Leu | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Arg | Ala | Thr | Ile | Asn | Cys | Lys | Ser | Ser | Gln | Ser | Val | Leu | Tyr | Ser |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Asn | Asn | Lys | Asn | Tyr | Leu | Ala | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Gln |
| | | | 35 | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pro | Pro | Lys | Leu | Leu | Ile | Tyr | Trp | Ala | Ser | Thr | Arg | Glu | Ser | Gly | Val |
| | | | 50 | | | 55 | | | | | 60 | | | | |

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 57
<211> 337
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(336)
<223>

<400> 57
gat ctt gtg atg act cag tct cca gac tcc ctg gct gtg tct ctg ggc 48
Asp Leu Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30

tcc aac aat aag aac tac tta gct tgg cac cag cag aaa cca gga cag 144
Ser Asn Asn Lys Asn Tyr Leu Ala Trp His Gln Gln Lys Pro Gly Gln
35 40 45

cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc 192
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc 240
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa 288
Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

tat tat agt act cct ccg acg ttc ggc caa ggg acc aaa gtg gat atc a 337
Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Asp Ile
100 105 110

<210> 58
<211> 112
<212> PRT

<213> Homo sapiens

<400> 58

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Asp Leu Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1              5              10              15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
              20              25              30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp His Gln Gln Lys Pro Gly Gln
              35              40              45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
              50              55              60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65              70              75              80

Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
              85              90              95

Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Asp Ile
              100              105              110

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<210> 59

<211> 342

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(342)

<223>

<400> 59

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gat att gtg atg act cag tct cca gac tcc ctg gct gtg tct ctg ggc      48
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1              5              10              15

gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc      96
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
              20              25              30

tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag      144
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
              35              40              45

cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc      192
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
              50              55              60

cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc      240
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65              70              75              80

atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa      288

```

Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

tat tat agt act cct ccg acg ttc ggc caa ggg acc aag gtg gaa atc 336
Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

aaa cgt 342
Lys Arg

<210> 60
<211> 114
<212> PRT
<213> Homo sapiens

<400> 60
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110

Lys Arg

<210> 61
<211> 342
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(342)
<223>

<400> 61
gat att gtg atg act cag tct cca ctc tcc ctg ccc gtc acc cct gga 48
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

gag ccg gcc tcc atc tcc tgc agg tct agt cag agc ctc ttg gat agt 96
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
 20 25 30
 gat gat gga aac acc tat ttg gac tgg tac ctg cag aag cca ggg cag 144
 Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45
 tct cca cag ctc cta atc tat acg ctt tcc tat cgg gcc tct gga gtc 192
 Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
 50 55 60
 cca gac agg ttc agt ggc agt ggg tca ggc act gat ttc aca ctg aaa 240
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
 65 70 75 80
 atc agc agg gtg gag gct gag gat gtt gga gtt tat tac tgc atg caa 288
 Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
 85 90 95
 cgt ata gag ttt cct tac act ttt ggc cag ggg acc aaa gtg gat atc 336
 Arg Ile Glu Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Asp Ile
 100 105 110
 aaa cgt 342
 Lys Arg

<210> 62
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 62
 Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
 20 25 30
 Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45
 Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
 65 70 75 80
 Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
 85 90 95
 Arg Ile Glu Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Asp Ile
 100 105 110

Lys Arg

<210> 63
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(342)
 <223>

<400> 63
 gat gtt gtg atg act cag tct cca ctc tcc ctg ccc gtc acc cct gga 48
 Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 gag ccg gcc tcc atc tcc tgc agg tct agt cag agc ctc ttg gat agt 96
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
 20 25 30
 gat gat gga aac acc tat ttg gac tgg tac ctg cag aag cca ggg cag 144
 Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45
 tct cca cag ctc cta atc tat acg ctt tcc tat cgg gcc tct gga gtc 192
 Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
 50 55 60
 cca gac agg ttc agt ggc agt ggg tca ggc act gat ttc aca ctg aaa 240
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
 65 70 75 80
 atc agc agg gtg gag gct gag gat gtt gga gtt tat tac tgc atg caa 288
 Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
 85 90 95
 cgt ata gag ttt cct tac act ttt ggc cag ggg acc aag gtg gaa atc 336
 Arg Ile Glu Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110
 aaa cgt 342
 Lys Arg

<210> 64
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 64
 Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
 20 25 30
 Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45
 Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
 65 70 75 80
 Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
 85 90 95
 Arg Ile Glu Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110
 Lys Arg

<210> 65
 <211> 339
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(339)
 <223>

<400> 65
 gat att gtg atg acc cag act cca ctc tcc ctg ccc gtc acc cct gga 48
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 gag ccg gcc tcc atc tcc tgc agg tct agt cag agc ctc ttg gat agt 96
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
 20 25 30
 gat gat gga aac acc tat ttg gac tgg tac ctg cag aag cca ggg cag 144
 Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45
 tct cca cag ctc cta atc tat acg ctt tcc tat cgg gcc tct gga gtc 192
 Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
 50 55 60
 cca gac agg ttc agt ggc agt ggg tca ggc act gat ttc aca ctg aaa 240
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
 65 70 75 80
 atc agc agg gtg gag gct gag gat gtt gga gtt tat tac tgc atg caa 288
 Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
 85 90 95

gct aca caa ttg tac act ttt ggc cag ggg acc aag gtg gag atc aaa 336
 Ala Thr Gln Leu Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

cgt 339
 Arg

<210> 66
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 66
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
 20 25 30
 Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45
 Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
 65 70 75 80
 Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
 85 90 95
 Ala Thr Gln Leu Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

Arg

<210> 67
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(342)
 <223>

<400> 67
 gat att gtg atg act cag tct cca gac tcc ctg gct gtg tct ctg ggc 48
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser

| 20 | 25 | 30 | |
|---|-----|-----|-----|
| tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag | | | 144 |
| Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln | | | |
| 35 | 40 | 45 | |
| cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc | | | 192 |
| Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val | | | |
| 50 | 55 | 60 | |
| cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc | | | 240 |
| Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr | | | |
| 65 | 70 | 75 | 80 |
| atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa | | | 288 |
| Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln | | | |
| 85 | 90 | 95 | |
| tat tat agt act cct ccg acg ttc ggc caa ggg acc aag ctg gag atc | | | 336 |
| Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile | | | |
| 100 | 105 | 110 | |
| aaa cgt | | | 342 |
| Lys Arg | | | |

<210> 68
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 68
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
 100 105 110
 Lys Arg

<210> 69
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) .. (342)
 <223>

<400> 69
 gat gtt gtg atg act cag act cca gac tcc ctg gct gtg tct ctg ggc 48
 Asp Val Val Met Thr Gln Thr Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta cac aag 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu His Lys
 20 25 30
 tcc aac aat aag aac tat tta gct tgg tac cag cag aaa cca gga cag 144
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 cct cct aaa ttg ctc att cac tgg gct tct acc cgg gaa ttc ggg gtc 192
 Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
 50 55 60
 cct gac cga ctc agt ggc agc ggg tct gcg aca gat ttc act ctc acc 240
 Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
 65 70 75 80
 atc agc agc ctg cag gct gaa gac gtg gca gtc tat tac tgt cag caa 288
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 tat tat gct gtt cct ctc acc ttc ggc caa ggg aca cga ctg gag att 336
 Tyr Tyr Ala Val Pro Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
 100 105 110
 aaa cgt 342
 Lys Arg

<210> 70
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 70
 Asp Val Val Met Thr Gln Thr Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu His Lys
 20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
 50 55 60

Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ala Val Pro Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
 100 105 110

Lys Arg

<210> 71
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) .. (342)
 <223>

<400> 71
 gat att gtg atg acc cag acg cca gac tcc ctg gct gtg tct ctg ggc 48
 Asp Ile Val Met Thr Gln Thr Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag 144
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc 192
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc 240
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa 288
 Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 tat tat agt act cct ccg acg ttc agc caa ggg acc aag gtg gaa atc 336
 Tyr Tyr Ser Thr Pro Pro Thr Phe Ser Gln Gly Thr Lys Val Glu Ile
 100 105 110

aaa cgt
Lys Arg

342

<210> 72
<211> 114
<212> PRT
<213> Homo sapiens

<400> 72
Asp Ile Val Met Thr Gln Thr Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80
Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95
Tyr Tyr Ser Thr Pro Pro Thr Phe Ser Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys Arg

<210> 73
<211> 342
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(342)
<223>

<400> 73
gat gtt gtg atg act cag tct cca gac tcc ctg act gtg tct ctg ggc 48
Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Thr Val Ser Leu Gly
1 5 10 15
gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30
tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag 144

| | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Ser | Asn | Asn | Lys | Asn | Tyr | Leu | Ala | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Gln | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| cct | cct | aag | ctg | ctc | att | tac | tgg | gca | cct | acc | cgg | gaa | tcc | ggg | gtc | 192 | |
| Pro | Pro | Lys | Leu | Leu | Ile | Tyr | Trp | Ala | Pro | Thr | Arg | Glu | Ser | Gly | Val | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| cct | gac | cga | ttc | agt | ggc | agc | ggg | tct | ggg | aca | gat | ttc | act | ctc | acc | 240 | |
| Pro | Asp | Arg | Phe | Ser | Gly | Ser | Gly | Ser | Gly | Thr | Asp | Phe | Thr | Leu | Thr | | |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | | | |
| atc | agc | agc | ctg | cag | gct | gaa | gat | gtg | gca | gtt | tat | tac | tgt | cag | caa | 288 | |
| Ile | Ser | Ser | Leu | Gln | Ala | Glu | Asp | Val | Ala | Val | Tyr | Tyr | Cys | Gln | Gln | | |
| | | | 85 | | | | | | 90 | | | | | 95 | | | |
| tat | tat | agt | act | cct | ccg | acg | ttc | ggc | cag | ggg | acc | aag | gtg | gaa | atc | 336 | |
| Tyr | Tyr | Ser | Thr | Pro | Pro | Thr | Phe | Gly | Gln | Gly | Thr | Lys | Val | Glu | Ile | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| aaa | cgt | | | | | | | | | | | | | | | 342 | |
| Lys | Arg | | | | | | | | | | | | | | | | |

<210> 74
 <211> 114
 <212> PRT
 <213> Homo sapiens

| | | | | | | | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| <400> | 74 | | | | | | | | | | | | | | | | |
| Asp | Val | Val | Met | Thr | Gln | Ser | Pro | Asp | Ser | Leu | Thr | Val | Ser | Leu | Gly | | |
| 1 | | | 5 | | | | | 10 | | | | | | 15 | | | |
| Glu | Arg | Ala | Thr | Ile | Asn | Cys | Lys | Ser | Ser | Gln | Ser | Val | Leu | Tyr | Ser | | |
| | | | 20 | | | | | 25 | | | | | 30 | | | | |
| Ser | Asn | Asn | Lys | Asn | Tyr | Leu | Ala | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Gln | | |
| | 35 | | | | | | 40 | | | | | 45 | | | | | |
| Pro | Pro | Lys | Leu | Leu | Ile | Tyr | Trp | Ala | Pro | Thr | Arg | Glu | Ser | Gly | Val | | |
| | 50 | | | | | 55 | | | | | 60 | | | | | | |
| Pro | Asp | Arg | Phe | Ser | Gly | Ser | Gly | Ser | Gly | Thr | Asp | Phe | Thr | Leu | Thr | | |
| 65 | | | | | 70 | | | | | 75 | | | | 80 | | | |
| Ile | Ser | Ser | Leu | Gln | Ala | Glu | Asp | Val | Ala | Val | Tyr | Tyr | Cys | Gln | Gln | | |
| | | | 85 | | | | | | 90 | | | | | 95 | | | |
| Tyr | Tyr | Ser | Thr | Pro | Pro | Thr | Phe | Gly | Gln | Gly | Thr | Lys | Val | Glu | Ile | | |
| | | | 100 | | | | | 105 | | | | | 110 | | | | |
| Lys | Arg | | | | | | | | | | | | | | | | |

<210> 75
 <211> 342

<212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(342)
 <223>

<400> 75
 gat gtt gtg atg act cag tct cca gac tcc ctg gct gtg tct ctg ggc 48
 Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 gag agg gcc acc atc aac tgc aag tcc agc cag ggt gtt tta cac aag 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Gly Val Leu His Lys
 20 25 30
 tcc aac aat aag aac tat tta gct tgg tac cag cag aaa cca gga cag 144
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 cct cct aaa ttg ctc att cac tgg gct tct acc cgg gaa ttc ggg gtc 192
 Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
 50 55 60
 cct gac cga ctc agt ggc agc ggg tct gcg aca gat ttc act ctc acc 240
 Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
 65 70 75 80
 atc agc agc ctg cag gct gaa gac gtg gca gtc tat tac tgt cag caa 288
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 tat tat gct gtt cct ctc acc ttc ggc caa ggg aca cga ctg gag att 336
 Tyr Tyr Ala Val Pro Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
 100 105 110
 aaa cgt 342
 Lys Arg

<210> 76
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 76
 Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Gly Val Leu His Lys
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
 50 55 60

Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ala Val Pro Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
 100 105 110

Lys Arg

<210> 77
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(342)
 <223>

<400> 77
 gat att gtg atg acc cag acg cca gac tcc ctg gct gtg tct ctg ggc 48
 Asp Ile Val Met Thr Gln Thr Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30

tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag 144
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc 192
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc 240
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa 288
 Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

tat tat agt act cct ccg acg ttc ggc caa ggg acc aag gtg gaa atc 336
 Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

aaa cgt 342
 Lys Arg

<210> 78
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 78
 Asp Ile Val Met Thr Gln Thr Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110
 Lys Arg

<210> 79
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) .. (342)
 <223>

<400> 79
 gat gtt gtg atg act cag tct cca gac tcc ctg gct gtg cct ctg ggc 48
 Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Pro Leu Gly
 1 5 10 15
 gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta cac aag 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu His Lys
 20 25 30
 tcc aac aat aag aac cat tta gct tgg tac cag cag aaa cca gga cag 144
 Ser Asn Asn Lys Asn His Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45

cct cct aaa ttg ctc att cac tgg gct tct acc cgg gaa ttc ggg gtc 192
Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
50 55 60

cct gac cga ctc agt ggc agc ggg tct gcg aca gat ttc act ctc acc 240
Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
65 70 75 80

atc aac agc ctg cag gct gaa gac gcg gca gtc tat tac tgt cag caa 288
Ile Asn Ser Leu Gln Ala Glu Asp Ala Ala Val Tyr Tyr Cys Gln Gln
85 90 95

| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| tat | tat | gct | gtt | cct | ctc | acc | ttc | ggc | caa | ggg | aca | cga | ctg | gag | att | 336 |
| Tyr | Tyr | Ala | Val | Pro | Leu | Thr | Phe | Gly | Gln | Gly | Thr | Arg | Leu | Glu | Ile | |
| | | 100 | | | | | | 105 | | | | | 110 | | | |

| | |
|---------|-----|
| aaa cgt | 342 |
| Lys Arg | |

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<210> 80
<211> 114
<212> PRT
<213> Homo sapiens
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```
<400> 80
Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Pro Leu Gly
1          5          10          15
```

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu His Lys
20 25 30

Ser Asn Asn Lys Asn His Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
50 55 60

Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Asn Ser Leu Gln Ala Glu Asp Ala Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ala Val Pro Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
100 105 110

Lys Arg

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<210> 81
<211> 342
<212> DNA
<213> Homo sapiens
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<220>
 <221> CDS
 <222> (1)..(342)
 <223>

<400> 81
 gat att gtg atg act cag tct cca gac tcc ctg gct gtg tct ctg ggc 48
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag 144
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc 192
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc 240
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa 288
 Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 tat tat agt act cct ccg acg ttc ggc caa ggg acc aaa gtg gat atc 336
 Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Asp Ile
 100 105 110
 aaa cgt 342
 Lys Arg

<210> 82
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 82
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95

Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Asp Ile
100 105 110

Lys Arg

<210> 83
<211> 342
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(342)
<223>

<400> 83
gat gtt gtg atg act cag tct cca gac tcc ctg gct gtg tct ctg ggc 48
Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15
gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30
tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag 144
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45
cct cct aaa ttg ctc att cac tgg gct tct acc cgg gaa ttc ggg gtc 192
Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
50 55 60
cct gac cga ctc agt ggc agc ggg tct gcg aca gat ttc act ctc acc 240
Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
65 70 75 80
atc agc agc ctg cag gct gaa gac gtg gca gtc tat tac tgt cag caa 288
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
85 90 95
tat tat gct gtt cct ctc acc ttc ggc caa ggg aca cga ctg gag att 336
Tyr Tyr Ala Val Pro Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
100 105 110
aaa cgt 342
Lys Arg

<210> 84
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 84
 Asp Val Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Lys Leu Leu Ile His Trp Ala Ser Thr Arg Glu Phe Gly Val
 50 55 60
 Pro Asp Arg Leu Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 Tyr Tyr Ala Val Pro Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
 100 105 110
 Lys Arg

<210> 85
 <211> 342
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(342)
 <223>

<400> 85
 gac atc gtg atg acc cag tct cca gac tcc ctg gct gtg tct ctg ggc 48
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc 96
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag 144
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc 192
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc 240
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa 288
 Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

tat tat agt act cct ccg acg ttc ggc caa ggg acc aag gtg gaa atc 336
 Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

aaa cgt 342
 Lys Arg

<210> 86
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 86
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95
 Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110
 Lys Arg

<210> 87
 <211> 327
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(327)

<223>

<400> 87

gaa att gtg ctg act cag tct cca ggc acc ctg tct ttg tct cca ggg 48
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

gaa aga gcc acc ctc tcc tgc aag gcc agt cag agt ttt agc agc aac 96
 Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Gln Ser Phe Ser Ser Asn
 20 25 30

tac tta gcc tgg tac cag cag aaa cct ggc cag gct ccc agg ctg ctc 144
 Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45

atc tat ggt gca tcc agc agg gcc act ggc atc cca gac agg ttc agt 192
 Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60

ggc agt aaa tct ggg aca gac ttc act ctc acc atc agc aga ctg gag 240
 Gly Ser Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
 65 70 75 80

cct gaa gat ttt gca gtg tat tac tgt cag cag tat gtt acc tca ccg 288
 Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Val Thr Ser Pro
 85 90 95

tac act ttt ggc ctg ggg acc aag gtg gag atc aaa cgt 327
 Tyr Thr Phe Gly Leu Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 88

<211> 109

<212> PRT

<213> Homo sapiens

<400> 88

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Gln Ser Phe Ser Ser Asn
 20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
 65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Val Thr Ser Pro
 85 90 95

Tyr Thr Phe Gly Leu Gly Thr Lys Val Glu Ile Lys Arg

100

105

<210> 89
 <211> 325
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1) .. (324)
 <223>

<400> 89
 gat gtt ggg atg aca cag tct tca gcc acc cta tct ttg tct cca ggg 48
 Asp Val Gly Met Thr Gln Ser Ser Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 gaa aga gcc acc ctc tcc tgc agg gcc agt cag agg att agc agt tat 96
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Ile Ser Ser Tyr
 20 25 30
 tta gcc tgg tac caa cag aaa cct ggc cag gct ccc aga ctc ctc atc 144
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 tat gag gca gtc aaa agg gcc act ggc atc cca gcc agg ttc agt ggc 192
 Tyr Glu Ala Val Lys Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60
 agt ggg tct ggg aca gag ttc acc ctc acc atc aac agc cta gag cct 240
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Asn Ser Leu Glu Pro
 65 70 75 80
 gaa gat ttt gca gtt tat ttc tgt cag cag cgt ggc agc tgt cct ggg 288
 Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Arg Gly Ser Cys Pro Gly
 85 90 95
 acg ttc ggc cag ggg acc aag ctg gag atc aaa cgt t 325
 Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
 100 105

<210> 90
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 90
 Asp Val Gly Met Thr Gln Ser Ser Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Ile Ser Ser Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45

Tyr Glu Ala Val Lys Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Asn Ser Leu Glu Pro
 65 70 75 80
 Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Arg Gly Ser Cys Pro Gly
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
 100 105

<210> 91
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<220>
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<400> 91
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 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 tca gtg aag gtc tcc tgc aag gct tct gga tac acc ttc acc ggc tac 96
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 tat atg cac tgg gtg cga cag gcc cct gga caa ggg ctt gag tgg atg 144
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 gga tgg atc aac cct aac agt ggt ggc aca aag tat gca cag aag ttt 192
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Lys Tyr Ala Gln Lys Phe
 50 55 60
 cag ggc agg gtc acc atg acc agg gac acg tcc atc agc aca gcc tac 240
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 atg gag ctg agc agg ctg aga tct gac gac acg gcc gtg tat tac tgt 288
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 gcg aga gga tac gat att ttg act ggt tat ggc tgg ttc gac ccc tgg 336
 Ala Arg Gly Tyr Asp Ile Leu Thr Gly Tyr Gly Trp Phe Asp Pro Trp
 100 105 110
 ggc cag gga acc ctg gtc acc gtc tcc tca 366
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 92
 <211> 122
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<400> 92
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Lys Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Gly Tyr Asp Ile Leu Thr Gly Tyr Gly Trp Phe Asp Pro Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

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<400> 93
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 Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttt agt agc tat 96
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 tgg atg agt tgg gtc cgc cag gct cca ggg aag ggg ctg gag tgg gtg 144
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 gcc aac ata aag caa gat gga agt gag aaa tac tat gtg gac tct gtg 192
 Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val

| 50 | 55 | 60 | |
|---|-----|-----|-----|
| aag ggc cga ttc acc atc tcc aga gac aac gcc aag aac tca ctg tat | | | 240 |
| Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr | | | |
| 65 | 70 | 75 | 80 |
| ctg caa atg aac acc ctg aga gcc gag gac acg gct gtg tat tac tgt | | | 288 |
| Leu Gln Met Asn Thr Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys | | | |
| | 85 | 90 | 95 |
| gcg aga gat cgt ttg tgg acc cag ggg ttt ttt gac tac tgg ggc cag | | | 336 |
| Ala Arg Asp Arg Leu Trp Thr Gln Gly Phe Phe Asp Tyr Trp Gly Gln | | | |
| | 100 | 105 | 110 |
| gga acc ctg gtc acc gtc tcc tca | | | 360 |
| Gly Thr Leu Val Thr Val Ser Ser | | | |
| | 115 | 120 | |

<210> 94
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|---|-----|
| <400> 94 | |
| Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly | |
| 1 | 15 |
| Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr | |
| 20 | 30 |
| Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val | |
| 35 | 45 |
| Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val | |
| 50 | 60 |
| Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr | |
| 65 | 80 |
| Leu Gln Met Asn Thr Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys | |
| 85 | 95 |
| Ala Arg Asp Arg Leu Trp Thr Gln Gly Phe Phe Asp Tyr Trp Gly Gln | |
| 100 | 110 |
| Gly Thr Leu Val Thr Val Ser Ser | |
| 115 | 120 |

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| gac atc gtg atg acc cag tct cca gac tcc ctg gct gtg tct ctg ggc | 48 |
| Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly | |
| 1 5 10 15 | |
| gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac agc | 96 |
| Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser | |
| 20 25 30 | |
| tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga cag | 144 |
| Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln | |
| 35 40 45 | |
| cct cct aac ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg gtc | 192 |
| Pro Pro Asn Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val | |
| 50 55 60 | |
| cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc acc | 240 |
| Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr | |
| 65 70 75 80 | |
| atc agc agc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag caa | 288 |
| Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln | |
| 85 90 95 | |
| tat tat act act ccg tgg acg ttc ggc caa ggg acc aag gtg gaa atc | 336 |
| Tyr Tyr Thr Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile | |
| 100 105 110 | |
| aaa | 339 |
| Lys | |

<210> 96

<211> 113

<212> PRT

<213> Homo sapiens

<400> 96

| | |
|---|--|
| Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly | |
| 1 5 10 15 | |
| Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser | |
| 20 25 30 | |
| Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln | |
| 35 40 45 | |
| Pro Pro Asn Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val | |
| 50 55 60 | |
| Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr | |
| 65 70 75 80 | |

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Thr Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys

<210> 97
 <211> 23
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<220>
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<400> 97
 caggtkcagc tgggtgcagtc tgg 23

<210> 98
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<220>
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<400> 98
 caggtccagc ttgtgcagtc tgg 23

<210> 99
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<400> 99
 saggtccagc tgggtacagtc tgg 23

<210> 100
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<400> 100
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<210> 101
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<400> 104
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<400> 105
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<210> 106
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<400> 106
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<400> 107
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<210> 108
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<400> 108
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<210> 109
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<220>
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<400> 109
caggtacagc tgcagcagtc aggt 24

<210> 110
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 <400> 110
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 <210> 111
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 <210> 112
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 <400> 112
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<400> 115
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<210> 116
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<400> 117
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<210> 118
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<400> 118
 gatattgtga tgaccagac tcca 24

<210> 119
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<210> 122
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<210> 123
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<210> 124
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<210> 125
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<220>
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<400> 125
gaaattgtgc tgactcagtc tcca 24

<210> 126
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<210> 127
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<400> 129

acgttttgata tccacttttg tccc

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<210> 130

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cagtctgtgc tgactcagcc accc

24

<210> 132

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24

<210> 133

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<212> DNA

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22

<210> 134

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 tcctatgagc tgatgcagcc accc 24

<210> 138
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 <212> DNA
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<220>
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<400> 138
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<210> 139
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<400> 139
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<210> 141
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<400> 141
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<210> 142
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<400> 142
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<210> 143
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<400> 143
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<210> 144
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<210> 145
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<220>
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<210> 146
<211> 24
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<220>
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<400> 146
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<210> 147
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<400> 147
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<210> 148
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 <400> 148
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 <210> 149
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 <400> 149
 acctaggacg gtcagcttgg tccc 24

 <210> 150
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 accgaggacg gtcagctggg tgcc 24

 <210> 151
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 gcggatcgga catccagatg acccagtctc c 91

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 gcaccctggg caccgtctcc tcaggtgg 28

<210> 153
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<400> 153
 ggacaatggt caccgtctct tcaggtgg 28

<210> 154
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 gaaccctggt caccgtctcc tcaggtgg 28

<210> 155
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<400> 155
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<210> 156
 <211> 32
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<220>
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<400> 156
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<210> 157
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<220>
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<400> 157
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<210> 158
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<220>
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<400> 158
ggagactgcg tcaacacaat ttccgatccg cc 32

<210> 159
<211> 32
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<220>
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<400> 159
ggagactggg tcatcacgat gtccgatccg cc 32

<210> 160
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<400> 160
ggagactgcg tgagtgtcgt ttccgatccg cc 32

<210> 161
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<400> 161
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<210> 162
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<400> 162
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<210> 163
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<400> 163
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<400> 164
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<400> 166
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<210> 167
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<400> 171
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<210> 175
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<400> 175
 taatgaattc acgtttgatt tccaccttgg tccc 34

<210> 176
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taatgaattc acgtttgatc tccaccttgg tccc 34

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<213> Artificial

<220>
<223> Artificially Synthesized Primer Sequence

<400> 179
taatgaattc acgtttaatc tccagtcgtg tccc 34

<210> 180
<211> 34
<212> DNA
<213> Artificial

<220>
<223> Artificially Synthesized Primer Sequence

<400> 180
taatgaattc acctaggacg gtgaccttgg tccc 34

<210> 181
<211> 34
<212> DNA
<213> Artificial

<220>

<223> Artificially Synthesized Primer Sequence

<400> 181

taatgaattc acctaggacg gtcagcttgg tccc

34

<210> 182

<211> 34

<212> DNA

<213> Artificial

<220>

<223> Artificially Synthesized Primer Sequence

<400> 182

taatgaattc acctaaaacg gtgagctggg tccc

34

<210> 183

<211> 861

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(861)

<223>

<400> 183

atg aaa tac ctg ctg ccg acc gct gct gct ggt ctg ctg ctc ctc gct
 Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
 1 5 10 15

48

gcc cag ccg gcg atg gcc atg gcc cag gtg cag ctg gtg cag tct ggg
 Ala Gln Pro Ala Met Ala Met Ala Gln Val Gln Leu Val Gln Ser Gly
 20 25 30

96

gct gag gtg aag aag cct ggg gcc tca gtg aag gtc tcc tgc aag gct
 Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala
 35 40 45

144

tct gga tac acc ttc acc ggc tac tat atg cac tgg gtg cga cag gcc
 Ser Gly Tyr Thr Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala
 50 55 60

192

cct gga caa ggg ctt gag tgg atg gga tgg atc aac cct aac agt ggt
 Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly
 65 70 75 80

240

ggc aca aag tat gca cag aag ttt cag ggc agg gtc acc atg acc agg
 Gly Thr Lys Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg
 85 90 95

288

gac acg tcc atc agc aca gcc tac atg gag ctg agc agg ctg aga tct
 Asp Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser
 100 105 110

336

gac gac acg gcc gtg tat tac tgt gcg aga gga tac gat att ttg act 384
 Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Ile Leu Thr
 115 120 125

ggc tat ggc tgg ttc gac ccc tgg ggc cag gga acc ctg gtc acc gtc 432
 Gly Tyr Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val
 130 135 140

tcc tca ggt ggt ggt ggt tcg ggt ggt ggt ggt tcg ggt ggt ggc gga 480
 Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 145 150 155 160

tcg gac atc gtg atg acc cag tct cca gac tcc ctg gct gtg tct ctg 528
 Ser Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu
 165 170 175

ggc gag agg gcc acc atc aac tgc aag tcc agc cag agt gtt tta tac 576
 Gly Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr
 180 185 190

agc tcc aac aat aag aac tac tta gct tgg tac cag cag aaa cca gga 624
 Ser Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly
 195 200 205

cag cct cct aaa ctg ctc att tac tgg gca tct acc cgg gaa tcc ggg 672
 Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly
 210 215 220

gtc cct gac cga ttc agt ggc agc ggg tct ggg aca gat ttc act ctc 720
 Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240

acc atc agc acc ctg cag gct gaa gat gtg gca gtt tat tac tgt cag 768
 Thr Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln
 245 250 255

caa tat tat agt act cct ccg acg ttc ggc caa ggg acc aag gtg gaa 816
 Gln Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu
 260 265 270

atc aaa cgt cgt gaa ttc gac tac aag gat gac gac gat aag tga 861
 Ile Lys Arg Arg Glu Phe Asp Tyr Lys Asp Asp Asp Asp Lys
 275 280 285

<210> 184

<211> 286

<212> PRT

<213> Homo sapiens

<400> 184

Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
 1 5 10 15

Ala Gln Pro Ala Met Ala Met Ala Gln Val Gln Leu Val Gln Ser Gly
 20 25 30

Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala
 35 40 45
 Ser Gly Tyr Thr Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala
 50 55 60
 Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly
 65 70 75 80
 Gly Thr Lys Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg
 85 90 95
 Asp Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser
 100 105 110
 Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Ile Leu Thr
 115 120 125
 Gly Tyr Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val
 130 135 140
 Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 145 150 155 160
 Ser Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu
 165 170 175
 Gly Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr
 180 185 190
 Ser Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly
 195 200 205
 Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly
 210 215 220
 Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
 225 230 235 240
 Thr Ile Ser Thr Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln
 245 250 255
 Gln Tyr Tyr Ser Thr Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu
 260 265 270
 Ile Lys Arg Arg Glu Phe Asp Tyr Lys Asp Asp Asp Asp Lys
 275 280 285

<210> 185
 <211> 846
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS

<222> (1) .. (846)

<223>

<400> 185

| | |
|---|-----|
| atg aaa tac ctg ctg ccg acc gct gct gct ggt ctg ctg ctc ctc gct | 48 |
| Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala | |
| 1 5 10 15 | |
| gcc cag ccg gcg atg gcc atg gcc cag gtg cag ctg gtg cag tct ggg | 96 |
| Ala Gln Pro Ala Met Ala Met Ala Gln Val Gln Leu Val Gln Ser Gly | |
| 20 25 30 | |
| gct gag gtg aag aag cct ggg gcc tca gtg aag gtc tcc tgc aag gct | 144 |
| Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala | |
| 35 40 45 | |
| tct gga tac acc ttc acc ggc tac tat atg cac tgg gtg cga cag gcc | 192 |
| Ser Gly Tyr Thr Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala | |
| 50 55 60 | |
| cct gga caa ggg ctt gag tgg atg gga tgg atc aac cct aac agt ggt | 240 |
| Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly | |
| 65 70 75 80 | |
| ggc aca aag tat gca cag aag ttt cag ggc agg gtc acc atg acc agg | 288 |
| Gly Thr Lys Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg | |
| 85 90 95 | |
| gac acg tcc atc agc aca gcc tac atg gag ctg agc agg ctg aga tct | 336 |
| Asp Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser | |
| 100 105 110 | |
| gac gac acg gcc gtg tat tac tgt gcg aga gga tac gat att ttg act | 384 |
| Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Ile Leu Thr | |
| 115 120 125 | |
| ggc tat ggc tgg ttc gac ccc tgg ggc cag gga acc ctg gtc acc gtc | 432 |
| Gly Tyr Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val | |
| 130 135 140 | |
| tcc tca ggt ggt ggt ggt tcg ggt ggt ggt ggt tcg ggt ggt ggc gga | 480 |
| Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly | |
| 145 150 155 160 | |
| tcg gaa att gtg ctg act cag tct cca ggc acc ctg tct ttg tct cca | 528 |
| Ser Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro | |
| 165 170 175 | |
| ggg gaa aga gcc acc ctc tcc tgc aag gcc agt cag agt ttt agc agc | 576 |
| Gly Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Gln Ser Phe Ser Ser | |
| 180 185 190 | |
| aac tac tta gcc tgg tac cag cag aaa cct ggc cag gct ccc agg ctg | 624 |
| Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu | |
| 195 200 205 | |
| ctc atc tat ggt gca tcc agc agg gcc act ggc atc cca gac agg ttc | 672 |

Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
 210 215 220
 agt ggc agt aaa tct ggg aca gac ttc act ctc acc atc agc aga ctg 720
 Ser Gly Ser Lys Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu
 225 230 235 240
 gag cct gaa gat ttt gca gtg tat tac tgt cag cag tat gtt acc tca 768
 Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Val Thr Ser
 245 250 255
 ccg tac act ttt ggc cag ggg acc aag gtg gag atc aaa cgt cgt gaa 816
 Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Arg Glu
 260 265 270
 ttc gac tac aag gat gac gac gat aag tga 846
 Phe Asp Tyr Lys Asp Asp Asp Asp Lys
 275 280
 <210> 186
 <211> 281
 <212> PRT
 <213> Homo sapiens
 <400> 186
 Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
 1 5 10 15
 Ala Gln Pro Ala Met Ala Met Ala Gln Val Gln Leu Val Gln Ser Gly
 20 25 30
 Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala
 35 40 45
 Ser Gly Tyr Thr Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala
 50 55 60
 Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly
 65 70 75 80
 Gly Thr Lys Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg
 85 90 95
 Asp Thr Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser
 100 105 110
 Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Ile Leu Thr
 115 120 125
 Gly Tyr Gly Trp Phe Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val
 130 135 140
 Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 145 150 155 160
 Ser Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro

| 165 | | | | | | | | 170 | | | | 175 | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Glu | Arg | Ala | Thr | Leu | Ser | Cys | Lys | Ala | Ser | Gln | Ser | Phe | Ser | Ser |
| 180 | | | | | | | | 185 | | | | 190 | | | |
| Asn | Tyr | Leu | Ala | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Gln | Ala | Pro | Arg | Leu |
| 195 | | | | | | | | 200 | | | | 205 | | | |
| Leu | Ile | Tyr | Gly | Ala | Ser | Ser | Arg | Ala | Thr | Gly | Ile | Pro | Asp | Arg | Phe |
| 210 | | | | | | | | 215 | | | | 220 | | | |
| Ser | Gly | Ser | Lys | Ser | Gly | Thr | Asp | Phe | Thr | Leu | Thr | Ile | Ser | Arg | Leu |
| 225 | | | | 230 | | | | 235 | | | | 240 | | | |
| Glu | Pro | Glu | Asp | Phe | Ala | Val | Tyr | Tyr | Cys | Gln | Gln | Tyr | Val | Thr | Ser |
| | | | | 245 | | | | 250 | | | | 255 | | | |
| Pro | Tyr | Thr | Phe | Gly | Gln | Gly | Thr | Lys | Val | Glu | Ile | Lys | Arg | Arg | Glu |
| | | | | 260 | | | | 265 | | | | 270 | | | |
| Phe | Asp | Tyr | Lys | Asp | Asp | Asp | Asp | Lys | | | | | | | |
| 275 | | | | 280 | | | | | | | | | | | |

<210> 187
 <211> 852
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(852)
 <223>

| | | |
|---|-----|-----|
| <400> | 187 | |
| atg aaa tac ctg ctg ccg acc gct gct gct ggt ctg ctg ctc ctc gct | | 48 |
| Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala | | |
| 1 5 10 15 | | |
| gcc cag ccg gcg atg gcc atg gcc cag gtc cag ctg gtg caa tct ggg | | 96 |
| Ala Gln Pro Ala Met Ala Met Ala Gln Val Gln Leu Val Gln Ser Gly | | |
| 20 25 30 | | |
| gga ggc ttg gtc cag cct ggg ggg tcc ctg aga ctc tcc tgt gca gcc | | 144 |
| Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala | | |
| 35 40 45 | | |
| tct gga ttc acc ttt agt agc tat tgg atg agt tgg gtc cgc cag gct | | 192 |
| Ser Gly Phe Thr Phe Ser Ser Tyr Trp Met Ser Trp Val Arg Gln Ala | | |
| 50 55 60 | | |
| cca ggg aag ggg ctg gag tgg gtg gcc aac ata aag caa gat gga agt | | 240 |
| Pro Gly Lys Gly Leu Glu Trp Val Ala Asn Ile Lys Gln Asp Gly Ser | | |
| 65 70 75 80 | | |
| gag aaa tac tat gtg gac tct gtg aag ggc cga ttc acc atc tcc aga | | 288 |
| Glu Lys Tyr Tyr Val Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg | | |

| 85 , | | | | | | | | | | 90 | | | | | 95 | | | | | |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|--|-----|
| gac | aac | gcc | aag | aac | tca | ctg | tat | ctg | caa | atg | aac | acc | ctg | aga | gcc | | | | | 336 |
| Asp | Asn | Ala | Lys | Asn | Ser | Leu | Tyr | Leu | Gln | Met | Asn | Thr | Leu | Arg | Ala | | | | | |
| | | | 100 | | | | | | 105 | | | | | 110 | | | | | | |
| gag | gac | acg | gct | gtg | tat | tac | tgt | gcg | aga | gat | cgt | ttg | tgg | acc | cag | | | | | 384 |
| Glu | Asp | Thr | Ala | Val | Tyr | Tyr | Cys | Ala | Arg | Asp | Arg | Leu | Trp | Thr | Gln | | | | | |
| | | | 115 | | | | | 120 | | | | | 125 | | | | | | | |
| ggg | ttt | ttt | gac | tac | tgg | ggc | cag | gga | acc | ctg | gtc | acc | gtc | tcc | tca | | | | | 432 |
| Gly | Phe | Phe | Asp | Tyr | Trp | Gly | Gln | Gly | Thr | Leu | Val | Thr | Val | Ser | Ser | | | | | |
| | | | 130 | | | | 135 | | | | | 140 | | | | | | | | |
| ggt | ggt | ggt | ggt | tcg | ggt | ggt | ggt | ggt | tcg | ggt | ggt | ggc | gga | tcg | gac | | | | | 480 |
| Gly | Gly | Gly | Gly | Ser | Gly | Gly | Gly | Gly | Ser | Gly | Gly | Gly | Gly | Gly | Ser | Asp | | | | |
| | | | | | 150 | | | | 155 | | | | | | 160 | | | | | |
| atc | gtg | atg | acc | cag | tct | cca | gac | tcc | ctg | gct | gtg | tct | ctg | ggc | gag | | | | | 528 |
| Ile | Val | Met | Thr | Gln | Ser | Pro | Asp | Ser | Leu | Ala | Val | Ser | Leu | Gly | Glu | | | | | |
| | | | | 165 | | | | | 170 | | | | | 175 | | | | | | |
| agg | gcc | acc | atc | aac | tgc | aag | tcc | agc | cag | agt | gtt | tta | tac | agc | tcc | | | | | 576 |
| Arg | Ala | Thr | Ile | Asn | Cys | Lys | Ser | Ser | Gln | Ser | Val | Leu | Tyr | Ser | Ser | | | | | |
| | | | 180 | | | | | 185 | | | | | 190 | | | | | | | |
| aac | aat | aag | aac | tac | tta | gct | tgg | tac | cag | cag | aaa | cca | gga | cag | cct | | | | | 624 |
| Asn | Asn | Lys | Asn | Tyr | Leu | Ala | Trp | Tyr | Gln | Gln | Lys | Pro | Gly | Gln | Pro | | | | | |
| | | | 195 | | | | 200 | | | | | 205 | | | | | | | | |
| cct | aac | ctg | ctc | att | tac | tgg | gca | tct | acc | cgg | gaa | tcc | ggg | gtc | cct | | | | | 672 |
| Pro | Asn | Leu | Leu | Ile | Tyr | Trp | Ala | Ser | Thr | Arg | Glu | Ser | Gly | Val | Pro | | | | | |
| | | | 210 | | | | 215 | | | | | 220 | | | | | | | | |
| gac | cga | ttc | agt | ggc | agc | ggg | tct | ggg | aca | gat | ttc | act | ctc | acc | atc | | | | | 720 |
| Asp | Arg | Phe | Ser | Gly | Ser | Gly | Ser | Gly | Thr | Asp | Phe | Thr | Leu | Thr | Ile | | | | | |
| | | | | | 230 | | | | 235 | | | | | 240 | | | | | | |
| agc | agc | ctg | cag | gct | gaa | gat | gtg | gca | gtt | tat | tac | tgt | cag | caa | tat | | | | | 768 |
| Ser | Ser | Leu | Gln | Ala | Glu | Asp | Val | Ala | Val | Tyr | Tyr | Cys | Gln | Gln | Tyr | | | | | |
| | | | | 245 | | | | 250 | | | | | 255 | | | | | | | |
| tat | act | act | ccg | tgg | acg | ttc | ggc | caa | ggg | acc | aag | gtg | gaa | atc | aaa | | | | | 816 |
| Tyr | Thr | Thr | Pro | Trp | Thr | Phe | Gly | Gln | Gly | Thr | Lys | Val | Glu | Ile | Lys | | | | | |
| | | | 260 | | | | 265 | | | | | 270 | | | | | | | | |
| cgt | gaa | ttc | gac | tac | aag | gat | gac | gac | gat | aag | tga | | | | | | | | | 852 |
| Arg | Glu | Phe | Asp | Tyr | Lys | Asp | Asp | Asp | Asp | Lys | | | | | | | | | | |
| | | | 275 | | | | 280 | | | | | | | | | | | | | |

<210> 188
 <211> 283
 <212> PRT
 <213> Homo sapiens

<400> 188

Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
 1 5 10 15
 Ala Gln Pro Ala Met Ala Met Ala Gln Val Gln Leu Val Gln Ser Gly
 20 25 30
 Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
 35 40 45
 Ser Gly Phe Thr Phe Ser Ser Tyr Trp Met Ser Trp Val Arg Gln Ala
 50 55 60
 Pro Gly Lys Gly Leu Glu Trp Val Ala Asn Ile Lys Gln Asp Gly Ser
 65 70 75 80
 Glu Lys Tyr Tyr Val Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 85 90 95
 Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Thr Leu Arg Ala
 100 105 110
 Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Leu Trp Thr Gln
 115 120 125
 Gly Phe Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 130 135 140
 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
 145 150 155 160
 Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu
 165 170 175
 Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser
 180 185 190
 Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro
 195 200 205
 Pro Asn Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val Pro
 210 215 220
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 225 230 235 240
 Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr
 245 250 255
 Tyr Thr Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 260 265 270
 Arg Glu Phe Asp Tyr Lys Asp Asp Asp Asp Lys
 275 280